

CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

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SUPPLEMENT TO
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CLASSIFICATION CONFIDENTIALCOUNTRY USSR -2- REPORTTOPIC "Stalin" Gun Factory No 92 in Gorki

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EVALUATION PLACE OBTAINED

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DATE OBTAINED PREPARED 14 June 1955

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REFERENCES PAGES 3 ENCLOSURES (NO. & TYPE) 3 sketches on ditto, with legendsREMARKS This is UNEVALUATED Information

1. The "Stalin" Gun Factory No 92 in Gorki (56°20'N/44°00'O) was located at the left bank of the Oka River, about 4 km from its entry into the Volga River within the town section called Novoye Sormovo. At the northern side of the "Stalin" plant, the Sormovski Street led to the west to the Sormovo town section. A refinery was located opposite of the plant. There was a spur track branching off from the main railroad line. Plant-owned locomotives and railroad cars were available. The "Stalin" plant had also connection to the Volga harbor where plant-owned dumb barges were available. 1
2. The gun factory has been erected in the early twenties and was engaged in armament orders during World War II. Unimportant war damages had been repaired in 1945. From mid-1946 to mid-1948, some new buildings had been constructed and the machine equipment had been enlarged and modernized by means of dismantling deliveries and reparation orders of Germany, and machine deliveries from the USA, England, and Czechoslovakia including machines constructed at the Walsmann Firm in Siegen, a firm in Duisburg, and the Firm BAMAG-Kraene und Maschinen (cranes and machines) in Stettin. PWs were employed mainly in minor tasks, chiefly as construction workers and only occasionally in the production procedure. PWs were strictly forbidden to enter most of the workshops. In early 1949, several new buildings have been erected in the southeastern section of the plant.
3. In 1949, the gun factory covered an area of about 4,200,000 square meters with a length of 3,500 meters and a width of 1,200 meters. The sheds were bricked up steel structures and without basements and had opaque wire glass windows. Most of the workshops had kitchens, messhalls, offices, and transformer stations, but in some cases, however, several sheds were supplied with electricity by a transformer station. The auxiliary workshops, storage sheds, administration buildings etc, were brick buildings. In 1949, following installations belonged to the main sheds: 1 forge, 2 foundries with auxiliary plants, 3 hardening shops, 2 turning installations, 4

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workshops for the production of component parts, 1 rolling mill with tube drawing installation, 1 punching installation, 3 mechanic workshops, 3 galvanic plants, 3 assembly plants, 1 large testing station, and 1 welding plant. The auxiliary workshops included: 1 tool plant, 1 concrete works, 2 oxygen plants, 1 oil storage depot, 1 plumber's shop, 1 water tower, 4 joineries with sawmills, 5 storage depots, about 6 compressor plants, about 20 transformer stations which transformed the current from 6,000 V to 380 to 440 V, 3 garages, 1 fire station, and 1 maintenance shop for locomotives with repair shop. Several administration buildings, kitchens, one first-aid station, coal, iron, and wood stores, and 3 new buildings belonged to the gun factory besides the workshops. The roads of the plant were in good condition. Electricity was supplied by a power station which was located 500 meters south of the gun factory. ²

4. Prior to mid-1946, guns, AT guns, AA guns, and tank guns with barrels between 1.5 and 15 meters long and with calibers of between 35 and 210 mm. After 1946, naval guns, submarine engines, precision instruments, suction and forcing pumps for submarines, petroleum pumps and boring heads for rock drilling were manufactured at the Gorki plant besides wooden parts and iron walls (sic) for dwelling houses, steel structures for buildings and bridges, hearth plates, kitchen-pots, gardening fences and tools. In 1949, the production of T-34 tanks (sic) and special weapons for the infantry was mentioned.

Prior to mid-1946, about 450 AT guns of an undetermined caliber were produced daily. In 1948, the plant had a daily output of about 140 AT and AA guns with a caliber of 85 mm, and two petroleum pumps each with 200 tubes. Near Installation No 7, chrome-plated searchlight-shaped disks with a diameter of about 30 to 60 cm and cylinders with a diameter of 10 to 12 cm and a length of about 50 cm for undetermined purposes were produced in 1948. In 1948, the production of Installation No 7 included various copper flanges and four boilers each with two flanges one of which was fitted on the upper side of the boiler and the other was embedded in several concrete layers. The purpose of these boilers was undetermined. At Installation No 20a, tubes with a length of 21 meters were produced. Short straight of funnel-shaped connecting pieces were welded in equidistances to these tubes which were used at Installation No 7 for undetermined purposes. ³

5. Raw materials, coal, timber, stones, cement, iron ore, and bauxite were daily delivered by rail or ship on the Volga River. Stones came from the Kazan area (55°45'N/49°08'E) and coal came from the Stalinogorsk area (54°04'N/38°15'E). Prior to late 1946, brass-like or bronze-like alloy additives with a diameter of about 60 cm and a length of 70 to 80 cm were delivered by the USA. These materials were provided with American stamps.
6. The plant's management mainly consisted of military personnel. In 1948, Yelan (fnu) who had the rank of a major general, was general manager. It was said that he was a relative of Stalin. Yelan had received a yearly premium of 250,000 rubles. Tamara Gross, [redacted] was chief constructor at this plant. [redacted]

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In early 1949, a German engineer with the name of Feigh (fnu) worked at the factory and was released in 1949. He was given free movement in the camp and probably belonged to German specialists who signed work contracts for the Soviets. These specialists were mainly employed at construction offices or assembling sheds, lived at Gorki and were not permitted to maintain any contact with the German PWs. During the period from 1946 to 1948, the total workforce amounted to about 20,000 to 30,000 persons, including about 30 percent male workers, about 40 percent female workers, about 20 percent male and female convicts, and about 10 percent juveniles. In 1946, about 3,000 PWs, in 1948, about 150 PWs, and in 1949 only about 80 PWs were employed at the factory. While three shifts daily were worked including Sundays, the PWs had to work only one shift per day and they were better treated than the Soviet convicts. The PWs were employed in loading operations, at construction sites, and very seldom as handymen in the production.

7. The gun factory was heavily guarded by soldiers and civil factory police including women. The soldiers belonged to a battalion consisting of about 400 men which was detached for guard duty by an infantry unit in Gorki for periods of eight weeks. The factory was surrounded by a board fence with double barbed wire on top, and was illuminated at night. Watch towers were located at intervals of about 100 meters and were occupied by guards equipped with machine guns. Soldiers guarded all buildings while the most important buildings had guards inside and outside. The guards of the gates consisted of soldiers and factory police. All shipments were performed at night because of strict security. No labels were available on boxes and trucks or electrical trucks. Each worker employed at the factory had to be in possession of an identity card which authorized him to enter certain workshops. The plant had a fire department equipped with six fire fighting cars. In 1948, underground air raid shelters, 50 x 20 meters, had been constructed outside the plant. Various installations of the plant including the rolling mill were separately fenced-in.

1. Comment. For location sketch of the "Stalin" Gun Factory No 92, see Annex 1.
2. Comment. For detailed layout sketch of the gun factory, see Annex 2.
3. Comment. For sketches of working parts produced at the "Stalin" factory, see Annex 3.

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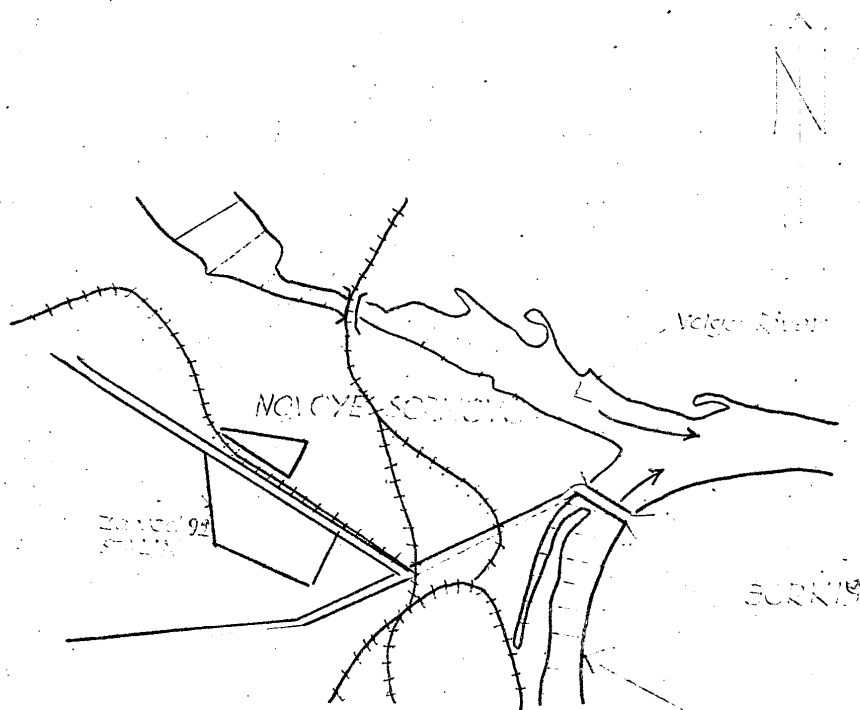
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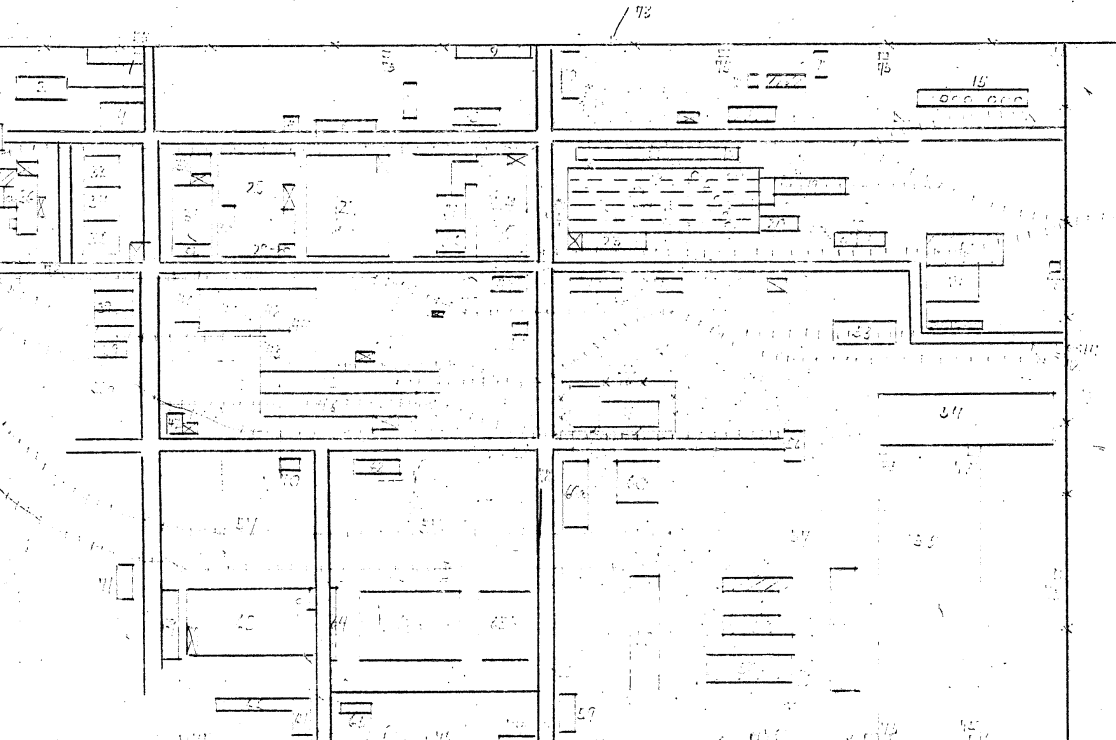
Location Sketch of the "Stalin" Gun Factory No 92 in Gorki



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Layout Sketch of the "Stalin" Gun Factory No 92 in GorkiLegend:

- 1 Six-story brick building housing the Main Administration
- 2 Five-story brick building with laboratories
- 3 Wooden main storage depot. In 1948, electric devices and other instruments were stored there.
- 4 Mechanical workshop No 26 which was equipped in 1948 with 4 travelling cranes and about 400 to 450 machine tools, designed for the testing of gun barrels, elimination of defects, and mounting of bolt mechanism.
- 5 First aid station.
- 6 Four-story brick building with offices, kitchen and messhalls
- 7 Large transformer station and distributing point
- 8 Installation No 17 with repair shop and garage where about 300 trucks and 16 sedans were parked in 1948.
- 9 Three-story guardhouse with detention rooms on the first floor. The guardhouse quartered the civil factory police in 1948.
- 10 Four-story building housing the fire department with billet rooms for fire fighting personnel. In 1948, six Magirus-type fire fighting cars were parked there.
- 11 Installation No 25 housing the tool section and the galvanizing department for miniature parts which was erected in 1946/1947. In 1948, the installation was equipped with about 100 machine tools. Gardening tools and spiral-shaped copper coils for laboratory purposes with a diameter of 0.75 to 3 inches were produced there.
- 12 Old oxygen plant
- 13 New oxygen plant with American equipment which was erected in 1947
- 14 Compressor station
- 15 Oil dump, installation No 10, which was equipped in 1948 with five gray painted oil tanks each 10 meters high and 15 meters in diameter and one tank, 20 meters high and 20 meters in diameters. All tanks were imbedded about 2 meters deep under ground. Pipes led to the individual installations. The oil dump had siding tracks and was fenced-in by barbed wire.
- 16 Installation No 11a, which was under construction in mid-1948
- 17 Cast-iron foundry, Installation No 11, which was equipped with two melting furnaces with oil burning. Gun wheels, hearth plates, gardening fences, and kitchen-pots were produced at this installation.
- 18 Storeroom with two sections. Joints of all types, thin metal plates, and gas masks were stored at Section a, while electric instruments and component parts for installation No 27 were stored at Section b.

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- 19 Coal dump belonging to the boiler house, installation No 12. In 1948, an underground coal transportation plant was available there.
- 20 Compressed air department, installation No 27, which was equipped in 1948 with 3 to 5 boilers each with a capacity of 250 atmospheres, 1 drilling machine, and 1 turning lathe. Installation No 27 delivered compressed air to the large forge, installation No 3.
- 21 Large forge, installation No 2, which was subdivided into five individual departments
 - a. This department was equipped with about three underground (sic) annealing furnaces and forge hammers for the forging of gun barrels.
 - b. This department was equipped with 4 to 6 oil-fired annealing furnaces and 4 small hammers. Unfinished parts for small guns with barrels about 2.5 meters long and ingots, about 80 x 60 cm, were forged there.
 - c. This installation was equipped with 4 oil-fired annealing furnaces and 4 small steam hammers. Ingots, about 80 x 40 cm, were forged there, presumably for breechblocks.
 - d. Six oil-fired annealing furnaces, 4 heavy hammers, two of them of US make and two of German make, were available at this installation, where unfinished gun barrels were forged. A commercial sign of a Duisburg firm was mentioned.
 - e. Turning and grinding section equipped with 4 small oil-fired annealing furnaces, 1 oil-pressure press, and about 50 to 60 machine tools. The press was used for gun barrel drillings (sic). The gun barrels were about 1.5 meters long and had a diameter of about 8 to 10 cm.

Departments a, b, c, d, and e were also equipped with travelling cranes of all sizes and gripping devices.

- f. Stone smoke stack, about 60 cm high.

From the foundry the raw steel ingots were transferred to Installation No 24, where they were subsequently brought to white heat and forged to a length of about 4 to 6 meters and a diameter of about 25 to 30 cm. After the first testing, the parts were poured over by a brown liquid and then transferred for further processing to the turning section, Installation No 16, where they were provided with bores and grooves. Then the gun barrels were transported to the mechanical workshop No 26 for testing purposes where they were also provided with breechblocks.

- 22 Boiler house, installation No 12, with basement equipped with eight steel smoke stacks which jutted about 10 meters above the roof. A repair shop was connected to the boiler house. This repair shop was equipped with about eight engines and a

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laboratory. Eight vertical high-pressure tanks for oil and coal-dust firing were available in 1948. Each of the boilers had three furnaces and two coal crushers which were installed in the basement. The coal was transported from the dump on an underground conveyor system of US make. The boiler plants were of Soviet make. Steam was delivered by the boiler house to Installations Nos. 3, 7, 8, 16, 25, and 27.

22a Laboratory

23 Switchboard

24 Turning department, Installation No 16, which partly collapsed because of faulty construction. In 1948, 180 to 200 machine tools and about 8 travelling cranes were available at this installation. Machines with the commercial sign of the Walsmann Firm at Siegen (K 51/G 25) were identified. At the turning department, gun barrels were provided with bores and grooves in addition to the production of pump component parts, submarine engines, and crankshafts, 4 meters long and about 20 cm in diameter, presumably scheduled for submarines.

25 Hardening shop, Installation No 6. In 1948, the installation was equipped with some casehardening furnaces, about 20 x 5 x 5 meters, where casing heads and milling cutters for trial borings were hardened. The individual parts of these workpieces were packed in sand in iron boxes which were hermetically sealed and then transferred into the casehardening furnaces where they had to remain at a fixed temperature. The following method was used for the hardening of unfinished gun barrels: About 5 to 10 such barrels were connected together by chains and were moved by a crane into the furnaces from where they were removed after a predetermined time and set out on the ground. Then they were transferred by cranes to the bore sights where they were processed by repeated rotating under hydraulic pressure. In early 1948, acid baths were mounted with eight tubs, each about 150 x 150 cm, which consisted of steel plates, about 2.5 to 3 mm thick. The tubs were lined with lead, of about 2.5 mm thickness.

26 Installation No 38, hardening shop for tools. In 1948, eight small oil firing casehardening furnaces, acid baths, and 50 to 60 machines tools were available at this installation, where tools and implements were hardened.

27 Assembling shed, Installation No 1, consisting of 4 to 5 sheds which were separated from each other by pillars. In 1948, the installation was equipped with 250 to 280 machines including 50 milling machines, most of which had been manufactured at the Skoda Works, carpenter's benches and turning lathes of Soviet, German, and US make. Gun barrels had been bored and the grooves had been milled at the milling machines which were about 20 to 25 meters long. In addition, petroleum pumps and submarine pumps had been assembled and submarine engines were tested at a special test stand. All kinds of shafts, spindles, handwheels, bolts, and plate disks had been produced at Installation No 1.

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- 28 Turning section and grindery, Installation No 21. In 1948, the heaviest parts of breechblocks, petroleum pumps, lift and delivery pumps, submarine engines, and casing heads of rock-drilling plants were processed and bolts, nuts, and all kinds of screws were manufactured at this installation. A total of 280 to 300 machines were available there.
- 29 Test stand for lift and delivery pumps, about 42 meters high, 6 meters long and 6 meters wide, with a wall thickness of about 1.5 meters. The test stand had been erected between January and March 1949. The constructor was paid a special bonus of 6,000 rubles for the fact erection of the test stand.
- 30 Installation No 50, about 220 x 150 x 20 meters, for the production of individual parts. In 1948, 180 to 200 machines were available there, 50 of which were Wanderer-type automatic lathes which had been assembled in 1947. Gear wheels and bevel gears for traversing gears were produced at this installation.
- 31 Installation No 34, about 70 x 20 x 15 meters, housing an electrical laboratory and an armature coil department.
- 32 Garage connected to Installation No 34.
- 33 Tool department, Installation No 9, where tools for the entire plant were produced. About 400 to 500 machine tools were available there.
- 34 Installation No 2 equipped with about 300 machines for the production of smallest accessories including parts for petroleum pumps, lift and delivery pumps, and submarine engines. These accessories were transported for further processing to the galvanizing department.
- 35 Galvanizing department, Installation No 5, where the smallest accessories were chrome- or nickel-plated. A tool section with 180 machines was also available at this installation.
- 36 Installation No 23. Smallest accessories including parts for breechblocks were manufactured there. A transformer station which belonged to Installation No 23 also supplied current to Installations Nos 7, 8, and 23. Offices, construction bureaus, and the office of the plant's manager were located above the transformer station in 1948.
- 37 Galvanizing department, Installation No 7. An iron footing, about 5 meters wide, led through the basement. Six brick basins each, about 14 x 12 x 1.5 meters which were lined with lead, about 8 cm thick, and one travelling crab each with a lifting capacity of 1.5 tons were available there. At this installation, the heavy parts for petroleum pumps, lift and delivery pumps, and submarine engines were nickel- and chrome-plated, and pressure tubes, 3 to 4 meters long and with a diameter of 12 to 20 cm, various tube parts, copper tubes, curved copper tubes, copper flanges, and sheets were zinc-plated. About 100 machines including turning lathes, milling machines, drilling machines, buffing machines, and grinding machines for internal

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and hollow grinding were installed at the first floor. Between 1948 and early 1949, rings with a diameter of about 3 meters and a width of about 2 meters with ribs on the inner sides were available at Installation No 7. These rings were believed to be used for the construction of submarines and torpedos. Ball shaped working parts with a diameter of 2 meters were also available there. These working parts were packed into cotton or gray felt and sent on small cars with rubber-tired wheels from installation to installation. It was said that these ball-shaped working parts were scheduled for chrome-plating. Installation No 7 had been erected between early 1946 and the winter of 1947. Work started in December 1947.

- 38 Installation No 8 with testing station and technical laboratory. The building had been erected between the fall and the spring of 1946. The windows were provided with camouflage painting. All doors and every second window were guarded. The test pieces, probably submarine engines, were packed into boxes without designation and arrived and left the installation only at night. This installation was ordered to manufacture tubes, 21 meters long and 1.5 inches thick. A distance of 8 to 10 cm, short flanges sockets, 10 cm long with a diameter of 0.5 inches, and provided with valves with hose connections were mounted to these tubes. Other tubes with a diameter of 6 inches and a length of 21 meters were also manufactured for this installation. Funnel-shaped parts were welded onto these tubes in distances of 8 to 20 cm. The funnel-shaped parts were about 15 cm high and had a diameter of 4 to 5 cm on the upper opening. Such tubes were ordered to be manufactured if new engines or machines scheduled for testing arrived at Installation No 8. Obsolete tubes were then rejected. From the fall of 1947 to early 1948, four boilers were installed, each about 3.5 to 4 meters high and with a diameter of 3.5 meters consisting of steel plates 12 to 15 mm thick. The boilers rested on concrete foundations, 5 x 5 x 1.5 meters. A layer of coarse concrete, 25 cm thick, was mounted at the bottom of each boiler, covered by a layer of fine concrete, 12 cm thick into which a tube with a diameter of 10 cm was concreted. Five layers of gravel with a grain size of 2 to 25 mm about 150 cm high were placed on the concrete layers. A cast-steel tube with a diameter of about 40 cm was mounted on top of each boiler.
- 38a Laboratory
- 39 Concrete works
- a. Dump of the concrete works
- 40 Installation No 35 housing the welding plant, the department for welding rods, and a special welding plant for copper and brass where aluminum containers with a height of 50 cm, a diameter of 50 cm, and a wall thickness of 2.3 to 5 mm were manufactured. After completion, the containers were transferred to Installation No 7.
41. Plumber's shop, Installation No 19. In 1948, the production included electric heaters, sheet metal tubes for furnaces, and sheet metal wardrobes.
- 42 Wood-pattern joinery, Installation No 13, where molds for the molding shop were manufactured.

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- 43 Foundry cleaning room, Installation No 28, equipped with 20 to 25 barking machines in 1948.
- 44 Punching department, Installation No 14, equipped with about 20 large punches in 1948. Sections for petroleum pumps, lift and delivery pumps, submarine engines, and breechblocks were punched at this department.
- 45 Molding shop, Installation No 4, equipped with 20 to 30 molding machines in 1948, where molds had been produced.
- 46 Foundry, Installation No 24, equipped with eight open-hearth furnaces, 10 meters high and with a diameter of about 4 meters, which were erected at distances of about 10 meters. The foundry was also equipped with two electric furnaces, each about 10 meters long, 6 meters wide, and 16 meters high, special magneto gripping devices of German make, several crane installations, and about 7 machine tools for repair purposes. The pieces were cast in iron chills, about 40 x 30 x 100 cm and about 30 x 30 x 100 cm. The production included working pieces, gun barrels, breechblocks, wheels with a diameter of 1 to 1.5 meters and a thickness of 12 to 15 cm. In 1946 and 1947, minerals were used as admixture to the feeding. One of the minerals was delivered in blue-green stony pieces which were so heavy that two men could carry not more than two shovels of this material. The other admixture mineral was of lighter material and looked like brick-red ore. Each ingot was drilled by an electric hand drilling machine equipped with a special bit. The borehole was about 1 meter deep and had a diameter of about 1 cm. The mat-gray iron dust which resulted from boring operations was collected into small metal boxes and then tested at the laboratory. It was observed in two different night shifts that white heated metal was taken with a ladle from an open-hearth furnace. Four or five flat round pieces with a diameter of 4 to 5 cm were cast from this metal. They looked like aluminum castings but had a heavier weight than aluminum and a lighter weight than iron. No information was available on the purpose of these castings.
- 47 Compressor station where compressed air was produced for Installations Nos 7, 8, 13, 14, 19, 28, and 35.
- 48 Water tower, about 35 meters high, an iron container with a diameter of about 10 meters, resting on a concrete base.
- 49 Boiler house No 5, equipped with four brick boilers and four metal chimneys on the roof. The boiler house produced steam for the entire plant.
- 50 Compressor station
- 51 Mechanical Department
- 52 Garage for tractors, Installation No 18, housing about 30 tractors in 1948.
- 52a Machine depot in the western section of the Plant's area. From 1945 to 1947 the machines the majority of which had come from Germany was stored in the open and after 1948, the depot was provided with a lean-to roof.

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- 53 Locomotive depot and repair shop
- 54 Coal dump
- 55 Prior to April 1949, PW Camp No 7117/5 was located there. From April 1949, about 2,000 Soviet convicts were imprisoned in this camp.
- 56 Boiler house No 7 with a metal smoke stack on the roof. In 1948, one boiler with coal firing was available there. Two further boilers were scheduled to be mounted at this installation.
- 57 Lumberyards
- 58 Wooden building housing the joinery where molds for the foundry, doors, and window cases were produced.
- 58a New building for undetermined purposes, erected in 1949
- 58b Mechanical OKS (sic). U-shaped building which had been finished in mid 1949. Cranes of all types had been produced and repaired at this installation.
- 58c Building under erection in 1949 which was scheduled for the mechanical OKS (sic)
- 59 Storage depot No 5, a wooden building, where screws, nuts, valves, wire, nails, and cast pipes of all kinds had been stored.
- 60 Sawing mill which was equipped in 1949 with 1 large frame saw, 3 small frame saws, about 15 circular and strap saws, and several planing machines. Boards of various thicknesses had been produced there. One OKS (sic) was also housed in the same building where finished iron walls (sic) for dwelling houses had been produced by means of a new pressing method.
- 60a Storage depot where paper, protecting and winter clothes for laborers had been stored in 1948.
- 61. Installation No 37 housing the tube drawing installation and the rolling mill. High-pressure tubes with a diameter of 2.5 to 4 cm were produced in 1948. Rolled-steel angles of various sizes, T girders, and double T girders (sic) had been produced at the rolling mill in addition to iron plates which had been produced since early 1949.
- 62 Special hardening shop for springs, Installation No 22, which was equipped in 1948 with 10 electric casehardening furnaces and several yellow painted cylinders, 1 meter high. All workers were provided with gas masks. Heating coils and Nikolon wire (sic) had been produced at the hardening shop.
- 63 Installation No 20 including
 - a. production shed for various tubes including tubes, 21 meter long, which were used at the testing station for engines, Installation No 8.
 - b. Structural-steel works
- 64 Kitchen and messhalls for military guards

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- 65 Boiler house K 60 with one metal smokestack, about 50 meters high. In 1948, the installation was equipped with three horizontal fire-tube boilers of German make each with two combustion accessories for coal firing. The boiler house delivered steam only to Installation No 60.
- 66 Three-story building housing assembling shop No 1 where steel structure parts were electrically welded together.
- 67 Compressor station
- 68 Installation No 60 with the department for the production of copper parts, copper joints, and flanges of various types. In 1947/1948, six special electric casehardening furnaces had been erected. These furnaces were 5 meters high, had a diameter of 1.5 meters and were provided with double walls lined with glass wool and a swing-out basket. The walls consisted of steel plates, 3 mm thick. Installation No 60 also housed a laboratory and a galvanizing plant. This installation was called a secret installation and was heavily guarded and was connected with Installations Nos 7 and 8.
- 68a Laboratory
- 69 Installation No 15 with carpenter's shop and packing department
- 70 Storage depot. Screws, pins, nails, oils, and lubricants were stored there in 1948.
- 71 Scrap dump containing old German tanks and guns and unfinished shells. The scrap was loaded by means of a crane 20 meters high.
- 72 Works entrances
- 73 Kalinski gate
- 74 Works fence
- 75 Watch towers
- 76 Wooden fence surrounding the rolling mill
- 77 Works roads



New construction after World War II



Transformer stations

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Tabulation of Installations and the Corresponding
Figures of the Legend

Installation No	Corresponding Figure
1	27
2	34
3	21
4	45
5	35
6	25
7	37
8	38
9	33
10	15
11	17
11a	16
12	22
13	42
14	44
15	69
16	24
17	8
18	52
19	41
20	63
21	28
22	62
23	36
24	46
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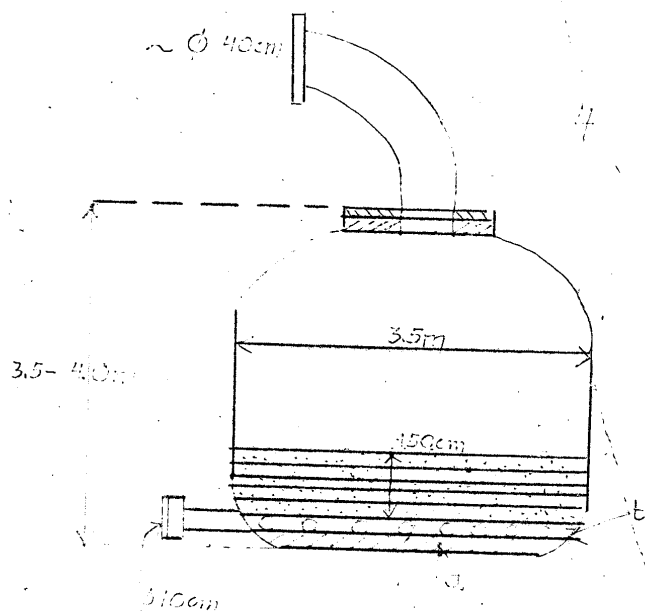
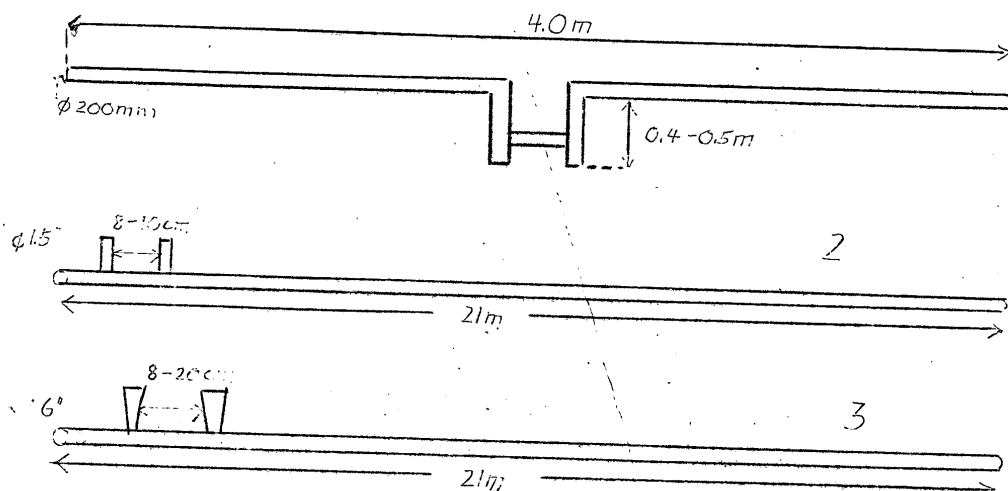
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Sketches of Parts Produced at the "Stalin" Gun Factory in GorkiLegend.

- 1 Crankshaft which had been produced at the turning section (Annex 2, item 24)
- 2 Tube with short flanged sockets, 21 meters long, used at Installation No 8 (Annex 2, item 38) and at Installation No 20a (Annex 2, item 63a)
- 3 Tube with welded funnel-shaped sockets, 21 meters long, used at Installation No 8 and at Installation No 20a
- 4 Sheet iron boiler which was produced during the period between the fall of 1947 and early 1948. The boilers were used at Installation No 8
 - a. Coarse concrete layer, 25 cm thick
 - b. Fine concrete layer, 12 cm thick

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CLASSIFICATION		CONFIDENTIAL	
COUNTRY	USSR	-2-	REPORT
TOPIC "Stalin" Gun Factory No 92 in Gorki			
EVALUATION		PLACE OBTAINED	
DATE OF CONTENT			25X1
DATE OBTAINED		DATE PREPARED	14 June 1955
REFERENCES			25X1
PAGES	3	ENCLOSURES (NO. & TYPE)	3 sketches on ditto, with legends
REMARKS			
This is UNEVALUATED Information			

1. The "Stalin" Gun Factory No 92 in Gorki (56°20'N/44°00'O) was located at the left bank of the Oka River, about 4 km from its entry into the Volga River within the town section called Novoye Sormovo. At the northern side of the "Stalin" plant, the Sormovski Street led to the west to the Sormovo town section. A refinery was located opposite of the plant. There was a spur track branching off from the main railroad line. Plant-owned locomotives and railroad cars were available. The "Stalin" plant had also connection to the Volga harbor where plant-owned dumb barges were available. 1 25X1
2. The gun factory has been erected in the early twenties and was engaged in armament orders during World War II. Unimportant war damages had been repaired in 1945. From mid-1946 to mid-1948, some new buildings had been constructed and the machine equipment had been enlarged and modernized by means of dismantling deliveries and reparation orders of Germany, and machine deliveries from the USA, England, and Czechoslovakia including machines constructed at the Walsmann Firm in Siegen, a firm in Duisburg, and the Firm BALAG-Kraene und Maschinen (cranes and machines) in Stettin. PWs were employed mainly in minor tasks, chiefly as construction workers and only occasionally in the production procedure. PWs were strictly forbidden to enter most of the workshops. In early 1949, several new buildings have been erected in the southeastern section of the plant.
3. In 1949, the gun factory covered an area of about 4,200,000 square meters with a length of 3,500 meters and a width of 1,200 meters. The sheds were bricked up steel structures and without basements and had opaque wire glass windows. Most of the workshops had kitchens, messhalls, offices, and transformer stations, but in some cases, however, several sheds were supplied with electricity by a transformer station. The auxiliary workshops, storage sheds, administration buildings etc. were brick buildings. In 1949, following installations belonged to the main sheds: 1 forge, 2 foundries with auxiliary plants, 3 hardening shops, 2 turning installations, 4

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workshops for the production of component parts, 1 rolling mill with tube drawing installation, 1 punching installation, 3 mechanic workshops, 3 galvanic plants, 3 assembly plants, 1 large testing station, and 1 welding plant. The auxiliary workshops included: 1 tool plant, 1 concrete works, 2 oxygen plants, 1 oil storage depot, 1 plumber's shop, 1 water tower, 4 joineries with sawmills, 5 storage depots, about 6 compressor plants, about 20 transformer stations which transformed the current from 6,000 V to 380 to 440 V, 3 garages, 1 fire station, and 1 maintenance shop for locomotives with repair shop. Several administration buildings, kitchens, one first-aid station, coal, iron, and wood stores, and 3 new buildings belonged to the gun factory besides the workshops. The roads of the plant were in good condition. Electricity was supplied by a power station which was located 500 meters south of the gun factory.²

4. Prior to mid-1946, guns, AT guns, AA guns, and tank guns with barrels between 1.5 and 15 meters long and with calibers of between 35 and 210 mm. After 1946, naval guns, submarine engines, precision instruments, suction and forcing pumps for submarines, petroleum pumps and boring heads for rock drilling were manufactured at the Gorki plant besides wooden parts and iron walls (sic) for dwelling houses, steel structures for buildings and bridges, hearth plates, kitchen-pots, gardening fences and tools. In 1949, the production of T-34 tanks (sic) and special weapons for the infantry was mentioned.

Prior to mid-1946, about 450 AT guns of an undetermined caliber were produced daily. In 1948, the plant had a daily output of about 140 AT and AA guns with a caliber of 85 mm, and two petroleum pumps each with 200 tubes. Near Installation No 7, chrome-plated searchlight-shaped disks with a diameter of about 30 to 60 cm and cylinders with a diameter of 10 to 12 cm and a length of about 50 cm for undetermined purposes were produced in 1948. In 1948, the production of Installation No 7 included various copper flanges and four boilers each with two flanges one of which was fitted on the upper side of the boiler and the other was embedded in several concrete layers. The purpose of these boilers was undetermined. At Installation No 20a, tubes with a length of 21 meters were produced. Short straight or funnel-shaped connecting pieces were welded in equidistances to these tubes which were used at Installation No 7 for undetermined purposes.³

5. Raw materials, coal, timber, stones, cement, iron ore, and bauxite were daily delivered by rail or ship on the Volga Riv.r. Stones came from the Kazan area (55°45'N/49°08'E) and coal came from the Stalinogorsk area (54°04'N/38°15'E). Prior to late 1946, brass-like or bronze-like alloy additives with a diameter of about 60 cm and a length of 70 to 80 cm were delivered by the USA. These materials were provided with American stamps.
6. The plant's management mainly consisted of military personnel. In 1948, Yelan (fnu) who had the rank of a major general, was general manager. It was said that he was a relative of Stalin. Yelan had received a yearly premium of 250,000 rubles. Tamara Gross, [redacted] was chief constructor at this plant. [redacted]

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In early 1949, a German engineer with the name of Feigh (fnu) worked at the factory and was released in 1949. He was given free movement in the camp and probably belonged to German specialists who signed work contracts for the Soviets. These specialists were mainly employed at construction offices or assembling sheds, lived at Gorki and were not permitted to maintain any contact with the German PWs. During the period from 1946 to 1948, the total workforce amounted to about 20,000 to 30,000 persons, including about 30 percent male workers, about 40 percent female workers, about 20 percent male and female convicts, and about 10 percent juveniles. In 1946, about 3,000 PWs, in 1948, about 150 PWs, and in 1949 only about 80 PWs were employed at the factory. While three shifts daily were worked including Sundays, the PWs had to work only one shift per day and they were better treated than the Soviet convicts. The PWs were employed in loading operations, at construction sites, and very seldom as handymen in the production.

7. The gun factory was heavily guarded by soldiers and civil factory police including women. The soldiers belonged to a battalion consisting of about 400 men which was detached for guard duty by an infantry unit in Gorki for periods of eight weeks. The factory was surrounded by a board fence with double barbed wire on top, and was illuminated at night. Watch towers were located at intervals of about 100 meters and were occupied by guards equipped with machine guns. Soldiers guarded all buildings while the most important buildings had guards inside and outside. The guards of the gates consisted of soldiers and factory police. All shipments were performed at night because of strict security. No labels were available on boxes and trucks or electrical trucks. Each worker employed at the factory had to be in possession of an identity card which authorized him to enter certain workshops. The plant had a fire department equipped with six fire fighting cars. In 1948, underground air raid shelters, 50 x 20 meters, had been constructed outside the plant. Various installations of the plant including the rolling mill were separately fenced-in.

1. Comment. For location sketch of the "Stalin" Gun Factory No 92, see Annex 1.

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2. Comment. For detailed layout sketch of the gun factory, see Annex 2.

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3. Comment. For sketches of working parts produced at the "Stalin" factory, see Annex 3.

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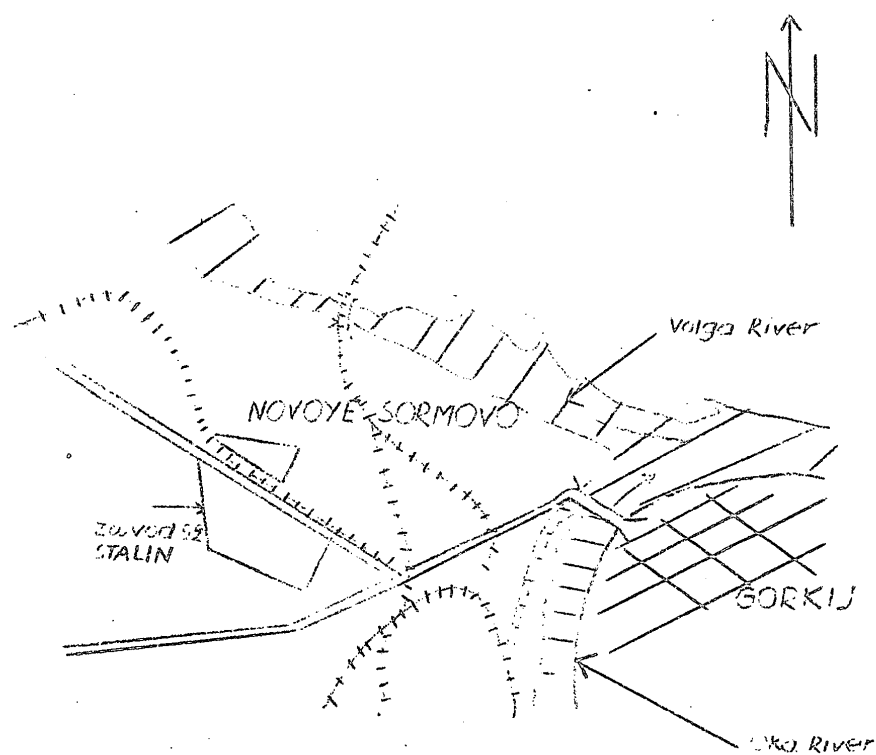
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Annex 1

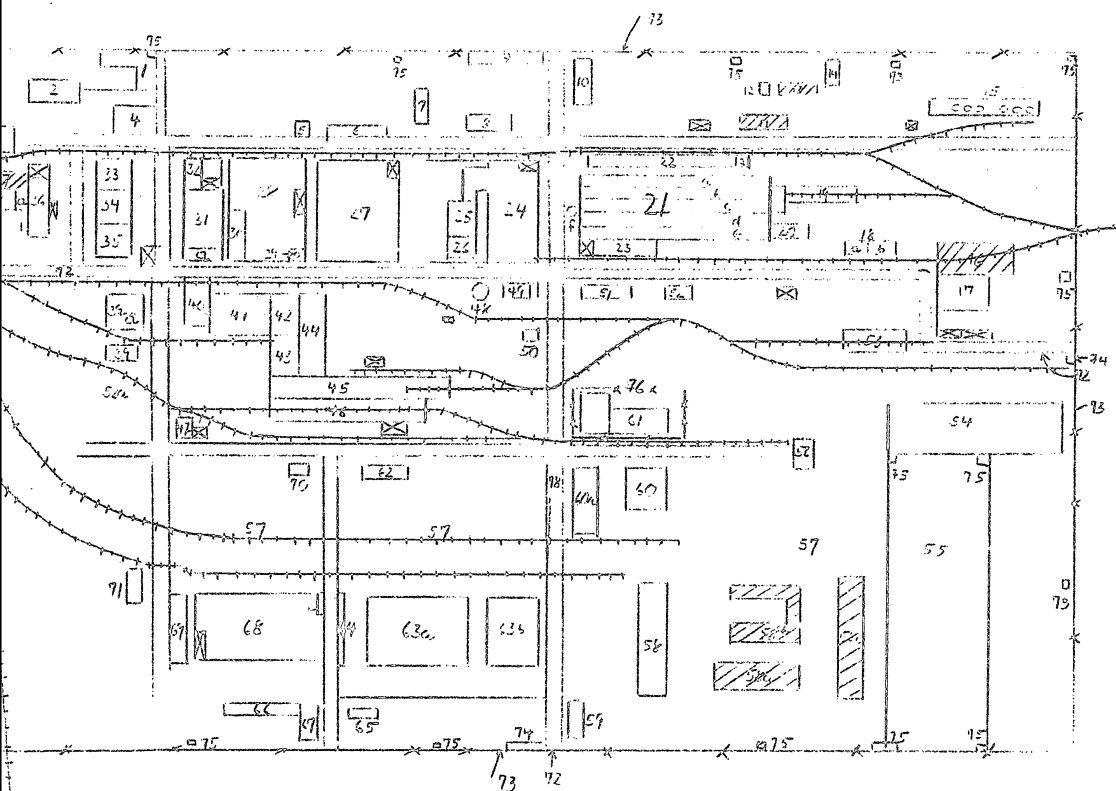
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Location Sketch of the "Stalin" Gun Factory No 92 in Gorki



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Layout Sketch of the "Stalin" Gun Factory No 92 in GorkiLegend:

- 1 Six-story brick building housing the Main Administration
- 2 Five-story brick building with laboratories
- 3 Wooden main storage depot. In 1948, electric devices and other instruments were stored there.
- 4 Mechanical workshop No 26 which was equipped in 1948 with 4 travelling cranes and about 400 to 450 machine tools, designed for the testing of gun barrels, elimination of defects, and mounting of bolt mechanism.
- 5 First aid station
- 6 Four-story brick building with offices, kitchen and messhalls
- 7 Large transformer station and distributing point
- 8 Installation No 17 with repair shop and garage where about 300 trucks and 16 sedans were parked in 1948.
- 9 Three-story guardhouse with detention rooms on the first floor. The guardhouse quartered the civil factory police in 1948.
- 10 Four-story building housing the fire department with billet rooms for fire fighting personnel. In 1948, six Magirus-type fire fighting cars were parked there.
- 11 Installation No 25 housing the tool section and the galvanizing department for miniature parts which was erected in 1946/1947. In 1948, the installation was equipped with about 100 machine tools. Gardening tools and spiral-shaped copper coils for laboratory purposes with a diameter of 0.75 to 3 inches were produced there.
- 12 Old oxygen plant
- 13 New oxygen plant with American equipment which was erected in 1947
- 14 Compressor station
- 15 Oil dump, installation No 10, which was equipped in 1948 with five gray painted oil tanks each 10 meters high and 15 meters in diameter and one tank, 20 meters high and 20 meters in diameters. All tanks were imbedded about 2 meters deep under ground. Pipes led to the individual installations. The oil dump had siding tracks and was fenced-in by barbed wire.
- 16 Installation No 11a, which was under construction in mid-1948
- 17 Cast-iron foundry, Installation No 11, which was equipped with two melting furnaces with oil burning. Gun wheels, hearth plates, gardening fences, and kitchen-pots were produced at this installation.
- 18 Storeroom with two sections. Joints of all types, thin metal plates, and gas masks were stored at Section a, while electric instruments and component parts for installation No 27 were stored at Section b.

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- 19 Coal dump belonging to the boiler house, installation No 12. In 1948, an underground coal transportation plant was available there.
- 20 Compressed air department, installation No 27, which was equipped in 1948 with 3 to 5 boilers each with a capacity of 250 atmospheres, 1 drilling machine, and 1 turning lathe. Installation No 27 delivered compressed air to the large forge, installation No 3.
- 21 Large forge, installation No 2, which was subdivided into five individual departments
 - a. This department was equipped with about three underground (sic) annealing furnaces and forge hammers for the forging of gun barrels.
 - b. This department was equipped with 4 to 6 oil-fired annealing furnaces and 4 small hammers. Unfinished parts for small guns with barrels about 2.5 meters long and ingots, about 80 x 60 cm, were forged there.
 - c. This installation was equipped with 4 oil-fired annealing furnaces and 4 small steam hammers. Ingots, about 80 x 40 cm, were forged there, presumably for breechblocks.
 - d. Six oil-fired annealing furnaces, 4 heavy hammers, two of them of US make and two of German make, were available at this installation, where unfinished gun barrels were forged. A commercial sign of a Duisburg firm was mentioned.
 - e. Turning and grinding section equipped with 4 small oil-fired annealing furnaces, 1 oil-pressure press, and about 50 to 60 machine tools. The press was used for gun barrel drillings (sic). The gun barrels were about 1.5 meters long and had a diameter of about 8 to 10 cm.

Departments a, b, c, d, and e were also equipped with travelling cranes of all sizes and gripping devices.

- f. Stone smoke stack, about 60 cm high.

From the foundry the raw steel ingots were transferred to Installation No 24, where they were subsequently brought to white heat and forged to a length of about 4 to 6 meters and a diameter of about 25 to 30 cm. After the first testing, the parts were poured over by a brown liquid and then transferred for further processing to the turning section, Installation No 16, where they were provided with bores and grooves. Then the gun barrels were transported to the mechanical workshop No 26 for testing purposes where they were also provided with breechblocks.

- 22 Boiler house, installation No 12, with basement equipped with eight steel smoke stacks which jutted about 10 meters above the roof. A repair shop was connected to the boiler house. This repair shop was equipped with about eight engines and a

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laboratory. Eight vertical high-pressure tanks for oil and coal-dust firing were available in 1948. Each of the boilers had three furnaces and two coal crushers which were installed in the basement. The coal was transported from the dump on an underground conveyer system of US make. The boiler plants were of Soviet make. Steam was delivered by the boiler house to installations Nos 3, 7, 8, 16, 25, and 27.

22a Laboratory

23 Switchboard

24 Turning department, Installation No 16, which partly collapsed because of faulty construction. In 1948, 180 to 200 machine tools and about 8 travelling cranes were available at this installation. Machines with the commercial sign of the Walsmann Firm at Siegen (K 51/G 25) were identified. At the turning department, gun barrels were provided with bores and grooves in addition to the production of pump component parts, submarine engines, and crankshafts, 4 meters long and about 20 cm in diameter, presumably scheduled for submarines.

25 Hardening shop, Installation No 6. In 1948, the installation was equipped with some casehardening furnaces, about 20 x 5 x 5 meters, where casing heads and milling cutters for trial borings were hardened. The individual parts of these workpieces were packed in sand in iron boxes which were hermetically sealed and then transferred into the casehardening furnaces where they had to remain at a fixed temperature. The following method was used for the hardening of unfinished gun barrels: About 5 to 10 such barrels were connected together by chains and were moved by a crane into the furnaces from where they were removed after a predetermined time and set out on the ground. Then they were transferred by cranes to the bore sights where they were processed by repeated rotating under hydraulic pressure. In early 1948, acid baths were mounted with eight tubs, each about 150 x 150 cm, which consisted of steel plates, about 2.5 to 3 mm thick. The tubs were lined with lead, of about 2.5 mm thickness.

26 Installation No 38, hardening shop for tools. In 1948, eight small oil firing casehardening furnaces, acid baths, and 50 to 60 machines tools were available at this installation, where tools and implements were hardened.

27 Assembling shed, Installation No 1, consisting of 4 to 5 sheds which were separated from each other by pillars. In 1948, the installation was equipped with 250 to 280 machines including 50 milling machines, most of which had been manufactured at the Skoda Works, carpenter's benches and turning lathes of Soviet, German, and US make. Gun barrels had been bored and the grooves had been milled at the milling machines which were about 20 to 25 meters long. In addition, petroleum pumps and submarine pumps had been assembled and submarine engines were tested at a special test stand. All kinds of shafts, spindles, handwheels, bolts, and plate disks had been produced at Installation No 1.

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- 28 Turning section and grindery, Installation No 21. In 1946, the heaviest parts of breechblocks, petroleum pumps, lift and delivery pumps, submarine engines, and casing heads of rock-drilling plants were processed and bolts, nuts, and all kinds of screws were manufactured at this installation. A total of 280 to 300 machines were available there.
- 29 Test stand for lift and delivery pumps, about 42 meters high, 6 meters long and 6 meters wide, with a wall thickness of about 1.5 meters. The test stand had been erected between January and March 1949. The constructor was paid a special bonus of 6,000 rubles for the fast erection of the test stand.
- 30 Installation No 50, about 220 x 150 x 20 meters, for the production of individual parts. In 1946, 180 to 200 machines were available there, 50 of which were Wandlerer-type automatic lathes which had been assembled in 1947. Gear wheels and bevel gears for traversing gears were produced at this installation.
- 31 Installation No 34, about 70 x 20 x 15 meters, housing an electrical laboratory and an armature coil department.
- 32 Garage connected to Installation No 34.
- 33 Tool department, Installation No 9, where tools for the entire plant were produced. About 400 to 500 machine tools were available there.
- 34 Installation No 2 equipped with about 300 machines for the production of smallest accessories including parts for petroleum pumps, lift and delivery pumps, and submarine engines. These accessories were transported for further processing to the galvanizing department.
- 35 Galvanizing department, Installation No 5, where the smallest accessories were chrome- or nickel-plated. A tool section with 180 machines was also available at this installation.
- 36 Installation No 23. Smallest accessories including parts for breechblocks were manufactured there. A transformer station which belonged to Installation No 23 also supplied current to Installations Nos 7, 8, and 23. Offices, construction bureaus, and the office of the plant's manager were located above the transformer station in 1948.
- 37 Galvanizing department, Installation No 7. An iron footing, about 5 meters wide, led through the basement. Six brick basins each, about 14 x 12 x 1.5 meters which were lined with lead, about 8 cm thick, and one travelling crab each with a lifting capacity of 1.5 tons were available there. At this installation, the heavy parts for petroleum pumps, lift and delivery pumps, and submarine engines were nickel- and chrome-plated, and pressure tubes, 3 to 4 meters long and with a diameter of 12 to 20 cm, various tube parts, copper tubes, curved copper tubes, copper flanges, and sheets were zinc-plated. About 100 machines including turning lathes, milling machines, drilling machines, buffing machines, and grinding machines for internal

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and hollow grinding were installed at the first floor. Between 1948 and early 1949, rings with a diameter of about 3 meters and a width of about 2 meters with ribs on the inner sides were available at Installation No 7. These rings were believed to be used for the construction of submarines and torpedoes. Ball shaped working parts with a diameter of 2 meters were also available there. These working parts were packed into cotton or gray felt and sent on small cars with rubber-tired wheels from installation to installation. It was said that those ball-shaped working parts were scheduled for chrome-plating. Installation No 7 had been erected between early 1946 and the winter of 1947. Work started in December 1947.

- 38 Installation No 8 with testing station and technical laboratory. The building had been erected between the fall and the spring of 1946. The windows were provided with camouflage painting. All doors and every second window were guarded. The test pieces, probably submarine engines, were packed into boxes without designation and arrived and left the installation only at night. This installation was ordered to manufacture tubes, 21 meters long and 1.5 inches thick. A distance of 8 to 10 cm, short flanges sockets, 10 cm long with a diameter of 0.5 inches, and provided with valves with hose connections were mounted to these tubes. Other tubes with a diameter of 6 inches and a length of 21 meters were also manufactured for this installation. Funnel-shaped parts were welded onto these tubes in distances of 8 to 20 cm. The funnel-shaped parts were about 15 cm high and had a diameter of 4 to 5 cm on the upper opening. Such tubes were ordered to be manufactured if new engines or machines scheduled for testing arrived at Installation No 8. Obsolete tubes were then rejected. From the fall of 1947 to early 1948, four boilers were installed, each about 3.5 to 4 meters high and with a diameter of 3.5 meters consisting of steel plates 12 to 15 mm thick. The boilers rested on concrete foundations, 5 x 5 x 1.5 meters. A layer of coarse concrete, 25 cm thick, was mounted at the bottom of each boiler, covered by a layer of fine concrete, 12 cm thick into which a tube with a diameter of 10 cm was concreted. Five layers of gravel with a grain size of 2 to 25 mm about 150 cm high were placed on the concrete layers. A cast-steel tube with a diameter of about 40 cm was mounted on top of each boiler.
- 38a Laboratory
- 39 Concrete works
- a. Dump of the concrete works
- 40 Installation No 35 housing the welding plant, the department for welding rods, and a special welding plant for copper and brass where aluminum containers with a height of 50 cm, a diameter of 50 cm, and a wall thickness of 2.3 to 5 mm were manufactured. After completion, the containers were transferred to Installation No 7.
- 41 Plumber's shop, Installation No 19. In 1948, the production included electric heaters, sheet metal tubes for furnaces, and sheet metal wardrobes.
- 42 Wood-pattern joinery, Installation No 13, where molds for the molding shop were manufactured.

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- 43 Foundry cleaning room, Installation No 28, equipped with 20 to 25 barking machines in 1948.
- 44 Punching department, Installation No 14, equipped with about 20 large punches in 1943. Sections for petroleum pumps, lift and delivery pumps, submarine engines, and breechblocks were punched at this department.
- 45 Molding shop, Installation No 4, equipped with 20 to 30 molding machines in 1946, where molds had been produced.
- 46 Foundry, Installation No 24, equipped with eight open-hearth furnaces, 10 meters high and with a diameter of about 4 meters, which were erected at distances of about 10 meters. The foundry was also equipped with two electric furnaces, each about 10 meters long, 6 meters wide, and 16 meters high, special magneto gripping devices of German make, several crane installations, and about 7 machine tools for repair purposes. The pieces were cast in iron chills, about 40 x 30 x 100 cm and about 30 x 30 x 100 cm. The production included working pieces, gun barrels, breechblocks, wheels with a diameter of 1 to 1.5 meters and a thickness of 12 to 15 cm. In 1946 and 1947, minerals were used as admixture to the feeding. One of the minerals was delivered in blue-green stony pieces which were so heavy that two men could carry not more than two shovels of this material. The other admixture mineral was of lighter material and looked like brick-red ore. Each ingot was drilled by an electric hand drilling machine equipped with a special bit. The borehole was about 1 meter deep and had a diameter of about 1 cm. The mat-gray iron dust which resulted from boring operations was collected into small metal boxes and then tested at the laboratory. It was observed in two different night shifts that white heated metal was taken with a ladle from an open-hearth furnace. Four or five flat round pieces with a diameter of 4 to 5 cm were cast from this metal. They looked like aluminum castings but had a heavier weight than aluminum and a lighter weight than iron. No information was available on the purpose of these castings.
- 47 Compressor station where compressed air was produced for Installations Nos 7, 8, 13, 14, 19, 28, and 35.
- 48 Water tower, about 35 meters high, an iron container with a diameter of about 10 meters, resting on a concrete base.
- 49 Boiler house No 5, equipped with four brick boilers and four metal chimneys on the roof. The boiler house produced steam for the entire plant.
- 50 Compressor station
- 51 Mechanical Department
- 52 Garage for tractors, Installation No 18, housing about 30 tractors in 1948.
- 52a Machine depot in the western section of the Plant's area. From 1945 to 1947 the machines the majority of which had come from Germany was stored in the open and after 1948, the depot was provided with a lean-to roof.

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- 53 Locomotive depot and repair shop
- 54 Coal dump
- 55 Prior to April 1949, PW Camp No 7117/5 was located there. From April 1949, about 2,000 Soviet convicts were imprisoned in this camp.
- 56 Boiler house No 7 with a metal smoke stack on the roof. In 1948, one boiler with coal firing was available there. Two further boilers were scheduled to be mounted at this installation.
- 57 Lumberyards
- 58 Wooden building housing the joinery where molds for the foundry, doors, and window cases were produced.
- 58a New building for undetermined purposes, erected in 1949
- 58b Mechanical OKS (sic). U-shaped building which had been finished in mid 1949. Cranes of all types had been produced and repaired at this installation.
- 58c Building under erection in 1949 which was scheduled for the mechanical OKS (sic)
- 59 Storage depot No 5, a wooden building, where screws, nuts, valves, wire, nails, and cast pipes of all kinds had been stored.
- 60 Sawing mill which was equipped in 1949 with 1 large frame saw, 3 small frame saws, about 15 circular and strap saws, and several planing machines. Boards of various thicknesses had been produced there. One OKS (sic) was also housed in the same building where finished iron walls (sic) for dwelling houses had been produced by means of a new pressing method.
- 60a Storage depot where paper, protecting and winter clothes for laborers had been stored in 1948.
- 61. Installation No 37 housing the tube drawing installation and the rolling mill. High-pressure tubes with a diameter of 2.5 to 4 cm were produced in 1948. Rolled-steel angles of various sizes, T girders, and double T girders (sic) had been produced at the rolling mill in addition to iron plates which had been produced since early 1949.
- 62 Special hardening shop for springs, Installation No 22, which was equipped in 1948 with 10 electric gashardening furnaces and several yellow painted cylinders, 1 meter high. All workers were provided with gas masks. Heating coils and Nikolon wire (sic) had been produced at the hardening shop.
- 63 Installation No 20 including
 - a. production shed for various tubes including tubes, 21 meter long, which were used at the testing station for engines, Installation No 8.
 - b. Structural-steel works
- 64 kitchen and messhalls for military guards

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- 65 Boiler house K 60 with one metal smokestack, about 50 meters high. In 1948, the installation was equipped with three horizontal fire-tube boilers of German make each with two combustion accessories for coal firing. The boiler house delivered steam only to Installation No 60.
- 66 Three-story building housing assembling shop No 1 where steel structure parts were electrically welded together.
- 67 Compressor station
- 68 Installation No 60 with the department for the production of copper parts, copper joints, and flanges of various types. In 1947/1948, six special electric casehardening furnaces had been erected. These furnaces were 5 meters high, had a diameter of 1.5 meters and were provided with double walls lined with glass wool and a swing-out basket. The walls consisted of steel plates, 3 mm thick. Installation No 60 also housed a laboratory and a galvanizing plant. This installation was called a secret installation and was heavily guarded and was connected with Installations Nos 7 and 8.
- 68a Laboratory
- 69 Installation No 15 with carpenter's shop and packing department
- 70 Storage depot. Screws, pins, nails, oils, and lubricants were stored there in 1948.
- 71 Scrap dump containing old German tanks and guns and unfinished shells. The scrap was loaded by means of a crane 20 meters high.
- 72 Works entrances
- 73 Kalinski gate
- 74 Works fence
- 75 Watch towers
- 76 Wooden fence surrounding the rolling mill
- 77 Works roads



New construction after World War II



Transformer stations

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Annex 2



Tabulation of Installations and the Corresponding
Figures of the Legend

Installation No	Corresponding Figure
1	27
2	34
3	21
4	45
5	35
6	25
7	37
8	38
9	33
10	15
11	17
11a	16
12	22
13	42
14	44
15	69
16	24
17	8
18	52
19	41
20	63
21	28
22	62
23	36
24	46
25	11
26	4
27	20
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34	31
35	40
37	61
38	26
50	30
60	68

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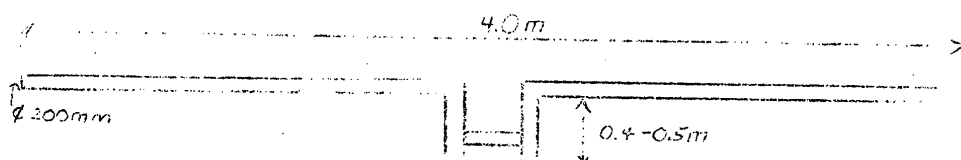
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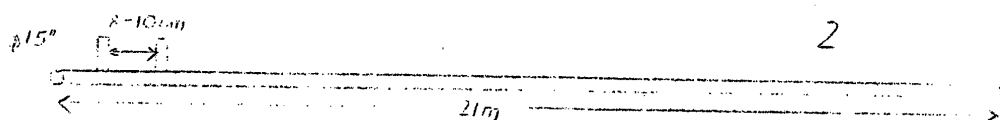
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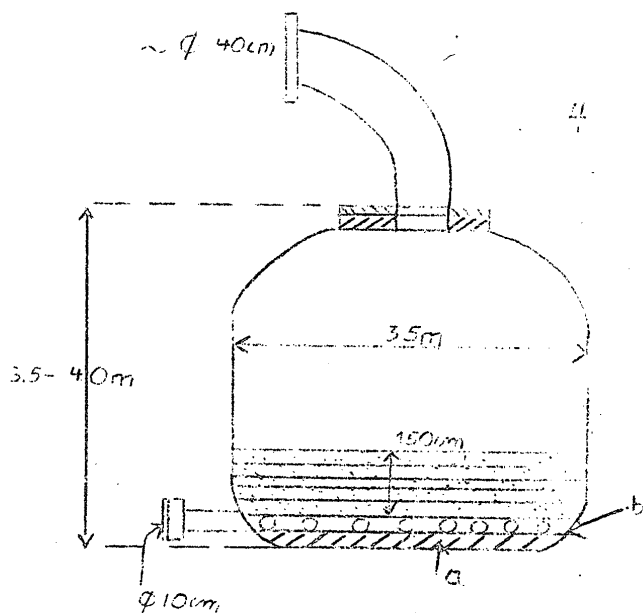
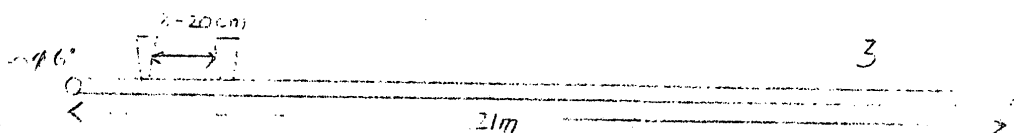
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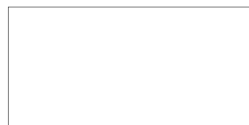
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Annex 3



Sketches of Parts Produced at the "Stalin" Gun Factory in Gorki

Legend.

- 1 Crankshaft which had been produced at the turning section (Annex 2, item 24)
- 2 Tube with short flanged sockets, 21 meters long, used at Installation No 8 (Annex 2, item 38) and at Installation No 20a (Annex 2, item 63a)
- 3 Tube with welded funnel-shaped sockets, 21 meters long, used at Installation No 8 and at Installation No 20a
- 4 Sheet iron boiler which was produced during the period between the fall of 1947 and early 1948. The boilers were used at Installation No 8
 - a. Coarse concrete layer, 25 cm thick
 - b. Fine concrete layer, 12 cm thick

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